

27. (New) A dielectric resonator as claimed in claim 26, wherein coupling amount of said three resonant modes of said dielectric block is varied by changing dimensions of said first plane and said second plane, respectively.

28. (New) A dielectric filter, comprising:

at least one dielectric resonator including a dielectric block having a generally rectangular parallelepiped shape, wherein three resonant modes of said dielectric block are coupled, wherein said dielectric resonator has a first plane formed by chamfering a single one of a ridge portion of said dielectric block and a second plane formed by chamfering a single one of a second ridge portion of said dielectric block, said first chamfered ridge portion not being parallel to said second chamfered ridge portion; and

a waveguide, wherein said at least one dielectric resonator is located in said waveguide.

29. (New) A dielectric filter of claim 28, wherein said at least one dielectric resonator comprises a dielectric resonator of a first type, said dielectric filter further comprising:

a dielectric resonator of a second type, said second type dielectric resonator being coupled to said at least one of said first type dielectric resonator.

30. (New) The dielectric filter of claim 29, wherein said second type dielectric resonator has a TEM mode and comprises a metal.

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31. (New) The dielectric filter of claim 28, further comprising:

a partition comprising a conductive material separating two dielectric resonators in said waveguide.

32. (New) The dielectric filter of claim 28, further comprising:

a metal rod inserted between two dielectric resonators in said waveguide.

33. (New) The dielectric filter of claim 28, further comprising:

an exciting means as an input terminal; and

an exciting means as an output terminal.

34. (New) The dielectric filter of claim 33, wherein each of said exciting means comprises a rod-shaped antenna of which a head portion is open.

35. (New) The dielectric filter of claim 28, further comprising:

a metal rod inserted near one of said at least one dielectric resonator, wherein each resonant frequency of each said resonant modes and each coupling amount between said three resonant modes are adjusted by adjusting a length of said metal rod.

36. (New) The dielectric filter of claim 28, further comprising:

a dielectric member having a low dielectric constant, said dielectric member supporting said at least one dielectric resonator.

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